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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANCK BADETS and DIDIER BELOT

Appeal 2009-013618
Application 10/603,579
Technology Center 2800

Before MAHSHID D. SAADAT, ERIC S. FRAHM, and
TREVOR M. JEFFERSON, *Administrative Patent Judges*.

FRAHM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Introduction

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1, 2, 24-29, and 33-36.¹ We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

Exemplary Claim

Exemplary independent claim 1 under appeal reads as follows, with emphasis added:

1. A variable phase-shifting circuit comprising:

an input for receiving an input signal having a specified oscillation frequency;

an output for delivering an output signal having said specified oscillation frequency and having a variable phase-shift with respect to said input signal;

at least one control input for receiving a control signal which controls the phase-shift of said output signal with respect to said input signal; and

a synchronized oscillator comprising a synchronization input coupled to said input of the variable phase-shifting circuit and an output coupled to said output of the variable phase-shifting circuit, said synchronized oscillator having a variable free-running oscillation frequency controlled by said control signal;

¹ Claims 4-23 stand withdrawn as directed to a non-elected invention resulting from a restriction requirement mailed August 18, 2004 (Final Rej. 2; Requirement for Restriction mailed August, 18, 2004; Appellants' Response/Election to Restriction filed September 23, 2004 electing Species A without traverse). Claims 3, 30-32, and 37-39 have been indicated as containing allowable subject matter (Final Rej. 4, ¶ 7).

wherein the input signal originates from a source that is external to the synchronized oscillator.

The Examiner's Rejection

The Examiner rejected claims 1, 2, 24-29, and 33-36 under 35 U.S.C. § 102(e) as being anticipated by Dai (US 6,469,585 B1). Ans. 3-5.

*Appellants' Contentions*²

Appellants contend (App. Br. 15-17; Reply Br. 11-14) that the Examiner erred in rejecting claims 1, 2, 24-29, and 33-36 under 35 U.S.C. § 102(e) for numerous reasons, including:

- (1) Dai's delay stages 32A and 32B cause a fixed phase shift of 90 degrees, and not a variable phase shift as recited in claim 1 (App. Br. 15-17; Reply Br. 11-12); and
- (2) Dai's transistors M5 and M6 operate as a memory element 35 having no output variation and no control signal, thus do not operate as a synchronized oscillator and are not equivalent to the claimed oscillator circuit (App. Br. 15-17; Reply Br. 12-14).

² Separate patentability is not argued for dependent claims 2, 25-29, and 34-36 (*see generally* App. Br. 15-17; Reply Br. 11-14). Appellants' arguments in the Appeal Brief (App. Br. 15-17) and the Reply Brief at pages 12-13 are not directed to any specific claim, and the arguments in the Reply Brief at pages 11-12 are directed to claims 1, 24, and 33, which Appellants state "may be considered together" (Reply Br. 11). In view of the foregoing, we select independent claim 1 as representative of the group of claims consisting of claims 1, 2, 24-29, and 33-36, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

Issue on Appeal

Based on Appellants' arguments in the briefs, the issue presented on appeal is:

Did the Examiner err in rejecting claims 1, 2, 24-29, and 33-36 as being anticipated because Dai fails to disclose the "variable phase-shifting circuit," output "having a variable phase-shift," and "synchronized oscillator" limitations recited in representative claim 1?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants' arguments in the Appeal Brief (App. Br. 14-18) and the Reply Brief (Reply Br. 11-14) that the Examiner has erred.

We disagree with Appellants' contentions. We adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken, and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellants' Appeal Brief (*see* Ans. 3-5). We concur with the conclusion reached by the Examiner, and highlight and address specific findings and arguments for emphasis as follows.

Anticipation of a claim under 35 U.S.C. § 102 occurs when each claimed element and the claimed arrangement or combination of those elements is disclosed, inherently or expressly, by a single prior art reference. *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1325, 1332 (Fed. Cir. 2010). The Examiner has the burden of providing reasonable proof that a claim limitation is an inherent characteristic of the prior art. *In re Best*, 562 F.2d 1252, 1254-55 (C.C.P.A. 1977); *see also* *Crown Operations Int'l, LTD v. Solutia Inc.*, 289 F.3d 1367, 1377 (Fed. Cir.

2002). The Examiner meets this “burden of production by ‘adequately explaining the shortcomings it perceives so that the applicant is properly notified and able to respond.’” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (quoting *Hyatt v. Dudas*, 492 F.3d 1365, 1370 (Fed. Cir. 2007)). In the instant case, the Examiner has met this burden by explaining how the transistors M5 and M6, VCNTRL signal, and delay circuit operate as equivalents of the variable phase-shift circuit, control signal, and synchronized oscillator as set forth in claim 1 (*see Ans. 3-5*).

Appellants’ argument that Dai tunes frequency and not phase is unconvincing since claim 1 does not require tuning of a frequency. Claim 1 merely recites a variable phase-shifting circuit for delivering an output signal to an output with a “specified oscillation frequency and having a variable phase-shift” (claim 1). Accordingly, Appellants’ arguments concerning tuning are not commensurate in scope with the language of claim 1.

We are also not persuaded by Appellants’ arguments that Dai’s delay circuit 32 shown in Figure 3 has delay stages 32A and 32B which cause a *fixed* phase shift at 90 degrees, and thus is not a variable phase-shift circuit as recited in claim 1. Dai’s delay stage 32 includes delay stages 32A and 32B which cause 90 degree phase shift in the output (*see col. 3, ll. 54-61; col. 4, ll. 24-28; Figs. 3-5*). The broadest reasonable interpretation of claim 1 only requires a variable shift in the phase (e.g., a shift of either 90 or 180 degrees) of the output signal as compared to the input signal. Thus, we find that Dai meets the limitations of representative claim 1 of a “variable phase-shifting circuit” including an output “having a variable phase-shift.”

We agree with the Examiner (Ans. 3-4) that Dai's VCNTRL signal operates to vary the delay (*see* Dai, col. 4, ll. 23-27), and thus is equivalent to the control signal recited in claim 1 which provides a variable free-running oscillation frequency for the synchronized oscillator. We also agree with the Examiner (Ans. 4-5) that Dai's cross coupled transistors M5 and M6 (Figs. 4 and 5) operate in combination with a feedback loop to oscillate the output signal (Vout), and thus are equivalent to the synchronized oscillator recited in claim 1. Notably, Dai's invention is entitled "Voltage Controlled *Oscillator*" (Dai, Title (emphasis added)). In view of the foregoing, we are not persuaded by Appellants' arguments that Dai fails to teach a synchronized oscillator.

Appellants' arguments that (i) Dai's memory circuit 35 is not equivalent to an oscillator circuit, and (ii) Dai fails to disclose a control signal for controlling the relatively constant memory element 35 are unpersuasive in light of our agreement with the Examiner's findings that Dai's (i) VNCTRL signal operates as the control signal, and (ii) transistors M5 and M6 with the feedback loop operate as the synchronized oscillator, recited in claim 1.

The burden of proof then shifts to the applicant "to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *Best*, 562 F.2d at 1254-55 (when the PTO identifies prior art that is the same or substantially the same as claimed subject matter, the burden shifts to the applicant to come forward with evidence and argument showing that the prior art products do not necessarily or inherently possess the characteristics of the claimed product); *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997) (holding that once the Examiner established a *prima facie*

case of anticipation, the burden of proof was properly shifted to the inventor to rebut the finding of inherency). In the instant case, Appellants have not met this burden, i.e., Appellants have provided no evidence on this record to support this assertion (that Dai's oscillator and delay circuit do not meet the limitations of claim 1 of shifting phase, etc.) apart from mere conclusory statements. It is well settled that mere lawyer's arguments and conclusory statements, which are unsupported by factual evidence, are entitled to little probative value. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984).

Additionally, while features of an apparatus or system may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78 (Fed. Cir. 1997). “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990). In the instant case, Appellants have failed to identify a structural distinction between Dai's delay circuit 32 shown in Figure 3 and the claimed variable phase-shifting circuit.

In view of the foregoing, we sustain the Examiner's rejection of representative claim 1, as well as claim 2 depending therefrom. For similar reasons we also sustain the Examiner's rejection of the remaining claims 24-29 and 33-36.

CONCLUSIONS

(1) The Examiner did not err in rejecting claims 1, 2, 24-29, and 33-36 as being unpatentable under 35 U.S.C. § 102(e).

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(2) Claims 1, 2, 24-29, and 33-36 are not patentable.

DECISION

The Examiner's rejection of claims 1, 2, 24-29, and 33-36 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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